Clarity Connect





Clarity Overview

- NYState C Corp. Started providing Internet Access summer of 1995.
 - early adopter of ISDN
 - one of the first DSL providers in the Nation (summer 1996)
 - providing commercial fixed wireless since 1997





Clarity Overview

- Chuck Bartosch
 - former physicist (Stanford undergrad, Cornell grad school)
 - Magnetospheric physics at Lockheed-Martin
 - 2D phase transitions, laser-surface adsorbate interaction studies
 - Multiple successful technology businesses since 1985





Geography

- Serving upstate NY and northern PA
 - Tompkins, Tioga, Otsego, Delaware Counties in NY
 - Bradford County in PA
- 1200 square miles covering 105K people, with 42K in rural areas outside of cities or primary villages, 63K in cities or primary villages





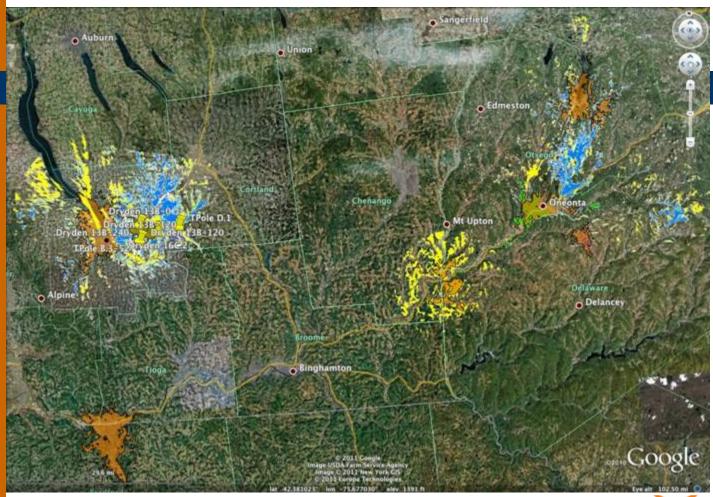
Geography







Overall Coverage Map

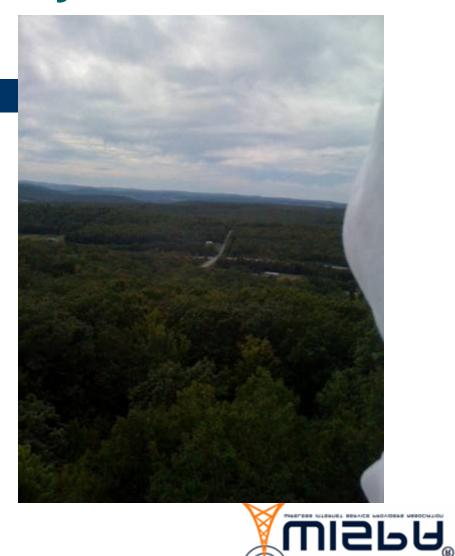






View From Sidney Tower







Castle Mountain







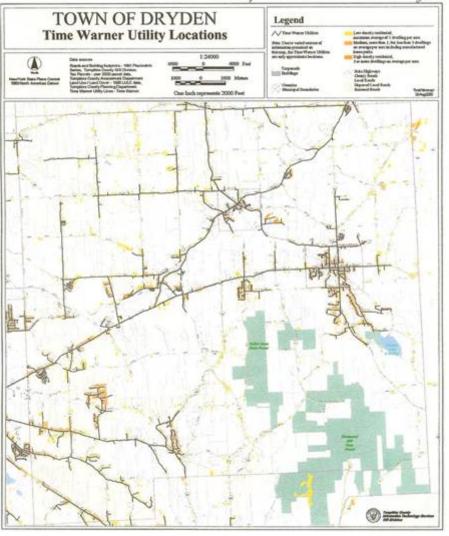
Technology

- Rolling out Alvarion Dual-Diversity WiMax 802.16e equipment
- Backhauls are unlicensed Alvarion or Ubiquity for backup or smaller sites
- Critical sites use Ceragon licensed links at up to 400 Mbps full duplex





Example Rollout: Town of Dryden

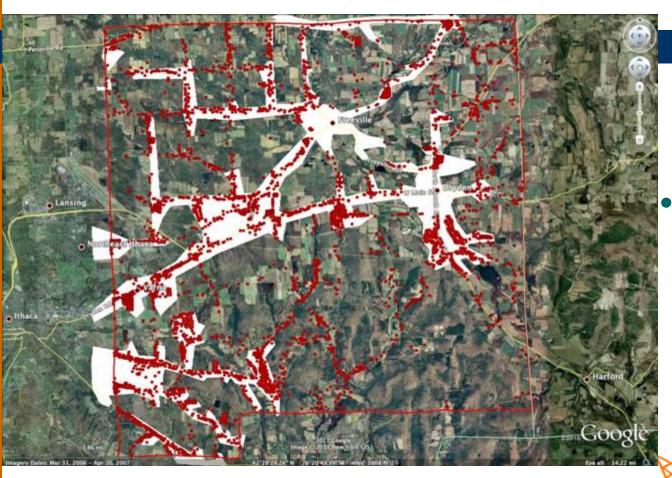


Time-Warner Coverage Map





Example Rollout: Town of Dryden



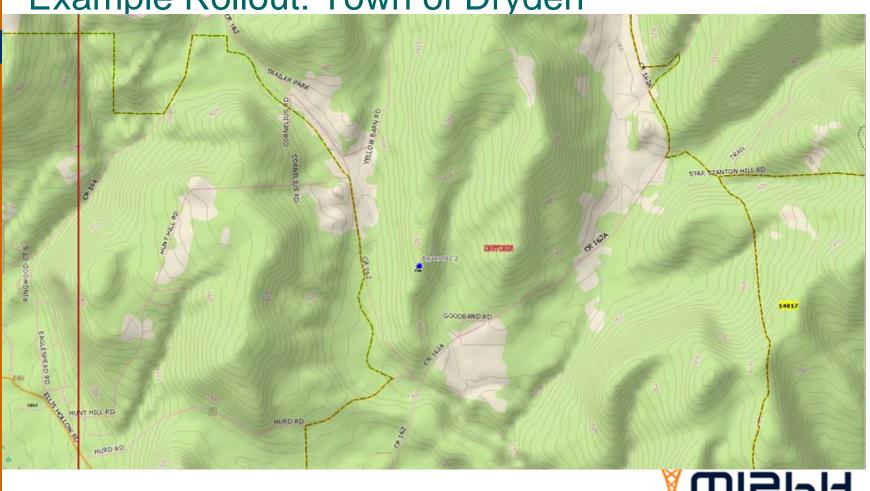
Unserved areas

WISPA WINNER SETVICE PROVIDERS MESOCIATION



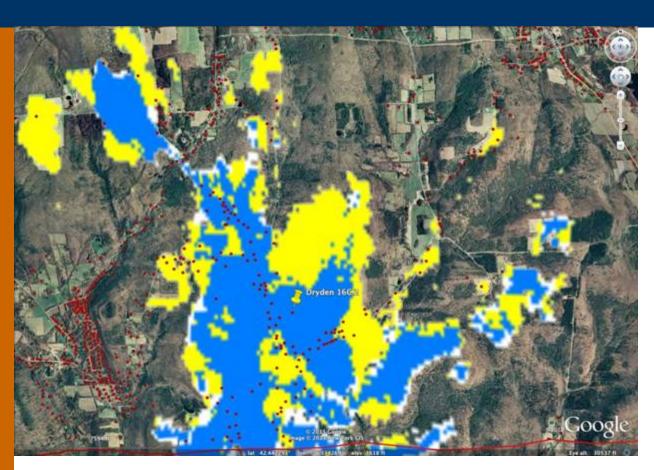
Topo of Drydren 16C.2 area

Example Rollout: Town of Dryden





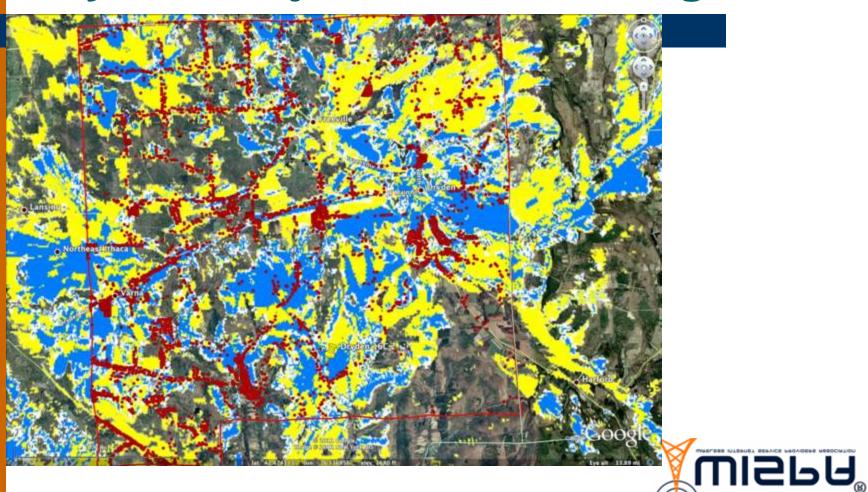
Coverage from Drydren 16C.2 Example Rollout: Town of Dryden







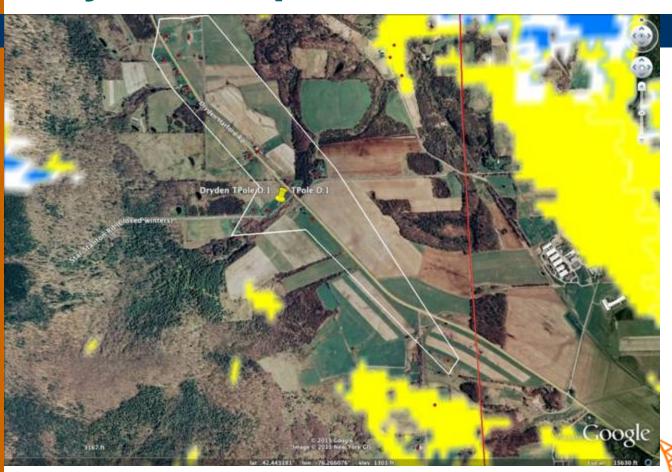
Dryden Project Total Coverage





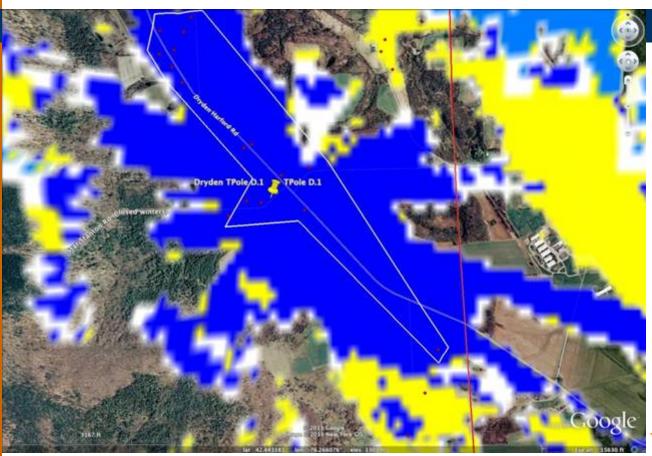
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Dryden Gap D





Dryden Microcell D.1: reaches 17 people







Costs of Microcell: \$4,800

- Telephone pole
- NEMA enclosure
- Radios (distribution and backhaul)
- Dual PS router
- Remote reboot
- UPS
- Mounts, cables, etc.





3G Coverage Study

